2. Objection to Abstract.

In the Office Action, an objection was made to the Abstract because its length exceeded 150 words. This response includes an amendment of the Abstract that addresses this objection.

3. Objection to Specification.

In the Office Action, an objection was made to the specification for the spelling of "re-writable." This response includes an amendment of the specification that addresses this objection.

4. Objection to Title.

In the Office Action, an objection was made to the title as being not descriptive. This response includes an amendment of the title that includes the Examiner's suggestion for a new title.

5. Objections to Claims 8, 12, 16 and 19-20.

In the Office Action, objections were made to Claims 8, 12, 16 and 19-20 for informalities. This response includes amendments of these claims that address these objections.

6. Rejection of Claim 19 under 35 U.S.C. § 102.

In the Office Action, Applicant's Claim 19 was rejected as anticipated by U.S. Pat. No. 6,112,174 ("Wakisaki"). Applicant respectfully traverses this rejection. Applicant requests the Examiner to reconsider and withdraw this rejection because at least one limitation of Claim 19 is *not disclosed* by Wakisaki.

Applicant's Claim 19 relates to a system that includes *inter alia* an *"automatic speech recognition system."* The *"automatic speech recognition system"* of Applicant's Claim 19 uses a *"word list"* containing *"data representations of spoken names of geographic features."* The *"word list"* includes a *"first portion"* and a *"second portion."* The *"first portion"* of the *"word list"* includes *"data representations of*
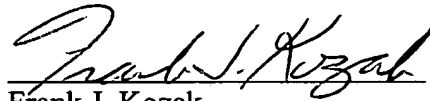
spoken names of geographic features" that are *"selected without regard to proximity to the current location of the vehicle."* The *"second portion"* of the *"word list"* includes *"data representations of spoken names of geographic features"* that are *"selected based upon proximity to the current location of the vehicle."*

Wakisaki discloses a speech recognition system that may be used as part of a car navigation system. (Wakisaki: column 2, lines 19-21.) According to Wakisaki, a plurality of dictionaries are stored. (Wakisaki: column 2, lines 23-25.) Each dictionary contains a number of words or sentences to be made an object of speech recognition. (Wakisaki: column 2, lines 29-30.) The words or sentences in each dictionary correspond to the features located in separate geographic areas. (Wakisaki: column 5, line 36-column 6, line 38 and FIGS. 3A and 3B.) According to Wakisaki, when speech processing is performed, a dictionary in a second storage section is used. (Wakisaki: column 2, lines 38-44.) Wakisaki selects the dictionary to be stored in the second storage section based on the location of the vehicle. (Wakisaki: column 2, lines 50-53.) However, according to Wakisaki, *only one* dictionary is stored in the second storage section. (Wakisaki: column 2, lines 32-34.) Since each dictionary in Wakisaki corresponds to a separate geographic area and since Wakisaki uses *only one* dictionary at a time, the words and sentences available for speech recognition are limited to those in the geographic area around the vehicle. Therefore, Wakisaki does not disclose the feature recited in Applicant's Claim 19 of the *"first portion"* of the *"word list"* that includes *"data representations of spoken names of geographic features"* that are *"selected without regard to proximity to the current location of the vehicle."* At least for this reason, Applicant's Claim 19 is not anticipated by Wakisaki and Applicant respectfully requests that the rejection of Claim 19 be withdrawn.

7.   Conclusion.

With this response, Applicant has addressed all the issues in the Office Action mailed April 17, 2003. Applicant submits that the present application has been placed in condition for allowance. If any issues remain, the Examiner is invited to call the undersigned at the telephone number below.

Respectfully submitted,

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MARKED UP VERSIONS

IN THE TITLE (marked up version):

Please amend the title as follows: '

1 [SPATIALLY BUILT WORD LIST FOR AUTOMATIC SPEECH RECOGNITION

2 PROGRAM AND METHOD FOR FORMATION THEREOF] DYNAMIC BUILDING,

3 MAINTENANCE AND USE OF SPATIAL WORD LIST FOR AUTOMATIC SPEECH

4 GENERATION

IN THE ABSTRACT (marked up version):

Please amend the Abstract on page 27 as follows:

1 A navigation system includes an automatic speech recognition program that

2 matches spoken words that describe geographic features [, such as places, street names

3 and points of interest,] to entries in a word list [. The word list] that contains a limited

4 number of entries. [In order to] To increase the likelihood that a spoken word [spoken by

5 a user of the navigation system] is included among the limited number of entries

6 contained in the word list, the word list is built to include entries that correspond to the

7 named geographic features closest to a current position of a vehicle in which the

8 navigation system is installed. As the vehicle travels through a geographic area, the word

9 list is rebuilt to include entries that correspond to the named geographic features closest

10 to the new current vehicle position. [In addition, the word list also contains a limited

11 number of entries that correspond to named geographic features that may not be close to

12 the current vehicle position but that are included because of their popularity or

13 importance.]

IN THE SPECIFICATION (marked up versions):

1. Please delete the paragraph starting on page 10, line 28 and continuing
through page 11, line 8 and replace it with the following revised paragraph.

1   At Step 416, if the distance, D, from the current vehicle position to the position

2   410 associated with the active word list exceeds the threshold, T, the threshold monitor

3   routine 302 calls the word list re-builder routine 304 <u>(Step 418)</u>. When the re-builder

4   routine 304 is called by the threshold monitor routine 302, it rebuilds the active word list

5   262. To perform this process, the re-builder routine 304 obtains the data 402 indicating

6   the current vehicle position. These data 402 indicating the current vehicle position may

7   be obtained from the vehicle positioning application 256, the positioning system 124, or

8   the threshold monitor routine 302. When rebuilding the active word list 262, the re-

9   builder routine 304 obtains from the geographic database 141 the name pronunciation

10   data associated with named represented geographic features. The named represented

11   geographic features for which name pronunciation data are obtained may include streets,

12   places, and points of interest.

2.   Please delete the paragraph starting on page 15, line 4 and continuing through page 15, line 7 and replace it with the following revised paragraph.

1   When the re-builder routine builds the new active word list 262, it may store some

2   or all of the new active word list in a non-volatile, [re-writable] <u>rewritable</u> memory in the

3   navigation system. Alternatively, when the re-builder routine builds the new active word

4   list, it may maintain some or all of the new active word list in RAM.

3.   Please delete the paragraph starting on page 15, line 8 and continuing through page 15, line 19 and replace it with the following revised paragraph.

1   When the re-builder routine 304 rebuilds the active word list 262 by replacing the

2   replaceable entries 460 with new name pronunciation data corresponding to the X closest

3   named geographic features, the re-builder routine 304 also updates the data 410

4   indicating the location associated with the active word list. The data 410 may be the

5   position of the vehicle when the active word list was re-built. The re-builder routine 304

6   stores the data 410 indicating a location associated with the active word list 262 so that

7   the active word list can be rebuilt as necessary to include pronunciation data for those

8   named geographic features that are most closely located to the vehicle's position as the

9   vehicle travels in a geographic area. The data 410 may be stored with the active word list

10   262, either in the non-volatile, [re-writable] rewritable data storage or in RAM. The data

11   410 indicating the location associated with the build of the active word list 262 may be

12   stored with the active word list, e.g., as part a file header.

4.   Please delete the paragraph starting on page 20, line 1 and continuing

through page 20, line 19 and replace it with the following revised paragraph.

1   In another alternative embodiment, instead of forming the active word list with

2   reserved entries and replaceable entries, all the entries can be replaceable. According to

3   this embodiment, included with the name data in the geographic database is an attribute

4   field that is used to indicate the importance of the represented named geographic feature.

5   In one embodiment, the importance field can include a number from 0-7. Residential

6   street names and other local features, such as non-chain restaurants, are assigned an

7   importance rating of 0. Business streets are assigned an importance rating of 2. City

8   names, streets and points of interest that are important across a metropolitan area are

9   assigned a rating of 5. Streets and destinations that are important across a metropolitan

10   area are assigned a rating of 5. Streets and destinations that are important nationally are

11   assigned a rating of 7. Figure 8 is an example of the components in an alternative

12   embodiment of the geographic database 141 that includes an importance attribute

13   associated with named geographic features. The importance attribute is included in a

14   spatial and importance name index 710 included in an embodiment of the geographic

15   database 141. According to this embodiment, when the re-build routine is called to re-

16   build the active word list, all the entries are replaced. When determining which entries to

17   include when re-building the active word list, the re-builder routine uses a plurality of

18   factors that combines the distance of the named geographic feature from the current

19   position of the vehicle and the importance of the named geographic feature. With this

20   embodiment, by proper scaling of the factors, a geographic feature having an importance

21   rating of 7 will always be included in the active word list.

IN THE CLAIMS (marked up versions):

       Please amend Claims 8, 12, 16, 19 and 20, as indicated.

1   8.   (Amended)   The method of Claim 7 wherein the predetermined

2   collection of geographic features that is selected without regard to proximity to the

3   current position of the vehicle [include] includes popular or important destinations.

4

1   12.   (Amended)   [In combination:] A system that provides geographic

2   information and that is formed of component systems comprising:

3   a positioning system that determines a current location of a vehicle;

4   an automatic speech recognition system that matches data representations of

5   words spoken by a user of the vehicle to a word list of data representations of names of

6   geographic features; and

7   a word list builder list program that operates at runtime to form a new word list of

8   data representations of names of geographic features when the current location of the

9   vehicle is more than a threshold distance from a previous location associated with a prior

10 list of data representations of names.

11

1   16.   (Amended)   The invention of Claim 12 further comprising:

2   a geographic database that contains data representations of named geographic

3   features in an area in which the vehicle is traveling; and

4   a spatial name index that orders names of geographic features by proximity to a

5   specified location._

6

1   19.   (Amended)   [In combination:] A system that provides geographic

2   information and that is formed of component systems comprising:

3   a positioning system that determines a current location of a vehicle;

- 13 -

4   an automatic speech recognition system that matches data representations of

5   words spoken by a user of the vehicle to a word list of data representations of spoken

6   names of geographic features, wherein the word list of data representations of spoken

7   names of geographic features includes only a portion of all available data representations

8   of spoken names of geographic features contained in a geographic database;

9   wherein a first portion of the word list of data representations of spoken names of

10   geographic features includes data representations of spoken names of geographic features

11   selected without regard to proximity to the current location of the vehicle; and

12   wherein a second portion of the word list of data representations of names of

13   geographic features includes data representations of spoken names of geographic features

14   selected based upon proximity to the current location of the vehicle.

15

1   20.   (Amended)   An improvement for a system that provides navigation-

2   related features to a user, wherein the system includes a positioning system component

3   that determines a current location of a user, an automatic speech recognition system

4   component that matches data representations of words spoken by the user to a word list

5   of data representations of spoken names of geographic features, wherein the word list of

6   data representations of spoken names of geographic features includes only a portion of all

7   available data representations of spoken names of geographic features contained in a

8   geographic database, the improvement comprising:

9   a word list [rebuilder] re-builder program that forms a new word list of data

10   representations of names of geographic features while the vehicle is traveling when the

11   current location of the vehicle is more than a threshold distance from a previous location

12   associated with a prior list of data representations of names.